# Properties of Elements, Compounds and Mixtures

This is the first text which will be used for practicing dictation and translation in the written part of the exam.

The key words are emphasized in bold

and there is a list of them at the end of the presentation.

# Properties of Elements, Compounds and Mixtures

A substance may be an element, a **compound** or a mixture. An element, such as nitrogen or iron, cannot be **broken down** into simpler substances. When two or more elements combine, they form a compound.

When elements combine to form compounds, there is a chemical reaction. Some properties of the elements change during the chemical reaction.

Compound – jedinjenje

To break down – razlagati

Property - osobina

# Properties of Elements, Compounds and Mixtures

For example, the element chlorine (Cl) is a poisonous yellow gas. Sodium (Na) is a soft silvery-white metal which reacts **violently** with water. However, if these elements combine, they form sodium chloride (NaCl), or salt. This is a harmless white substance.

Silvery – srebrni

Violently – burno

Harmless - bezopasan

# Properties of Elements, Compounds and Mixtures

When substances are mixed without a chemical reaction, they do not change their properties. Thus a mixture of sand and salt is yellowish-white in color. It tastes both **salty and gritty. If we put the mixture in water, the salt will dissolve, because it is soluble**. But the sand will not dissolve.

Every substance has a **melting point** and a **boiling point**. The former is the temperature at which it changes from solid to liquid. The latter is the temperature at which it changes from liquid to gas.

Yellowish – žućkast

Gritty – hrapav

To dissolve – rastvoriti se

Soluble - rastvorljiv

Melting point – tačka topljenja

Boiling point – tačka ključanja

Former…latter – prvo…drugo

# Properties of Elements, Compounds and Mixtures

These changes are called **changes of state**. Sometimes the properties of a substance change when it changes state. For example, if the temperature of oxygen falls below -183ºC, it changes from a colorless gas to a bluish liquid, which is highly magnetic.

Changes of state – promena stanja

Colorless – bezbojan

Bluish – plavkast